

Mr. Ronald Baker
Busak and Shamban
P. O. Box 176
Fort Wayne, IN 46801

Dear Mr. Baker:

Re: Exempt Construction and Operation Status,
003-14999-00219

The application from Busak and Shamban Seals Division, received on September 25, 2001, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following emission units, to be located at 2531 Bremmer Road, Fort Wayne, Indiana 46801, is classified as exempt from air pollution permit requirements:

Two (2) space heaters, identified as # 1 and # 2, fueled by natural gas, each with a heat capacity of 0.18 mmBTU per hour.

One (1) space heater, identified as # 4, fueled by natural gas, with a heat capacity of 0.15 mmBTU per hour.

One (1) space heater, identified as # 6, fueled by natural gas, with a heat capacity of 0.125 mmBTU per hour.

One (1) HVAC unit, identified as # 9, fueled by natural gas, with a heat capacity of 0.16 mmBTU per hour.

Three (3) electric ovens, identified as # 16, # 18, and # 19, each with a capacity of 60 kilowatts per hour.

One (1) oven, identified as # 17, with a heat capacity of 0.8 mmBTU per hour.

One (1) electric oven, identified as # 20, with a capacity of 60 kilowatts per hour.

One (1) electric oven, identified as # 21, with a heat capacity of 0.8 mmBTU per hour.

One (1) space heater, fueled by natural gas, identified as # 22, fueled by natural gas, with a heat capacity of 0.175 mmBTU per hour.

One (1) electric HVAC, identified as # 29, unknown kilowatts per hour.

Two (2) space heaters, fueled by natural gas, identified as # 30 and # 36, each with a heat capacity of 0.18 mmBTU per hour.

Four (4) space heaters, fueled by natural gas, identified as # 37, # 38, # 41 and #42, each with a heat capacity of 0.225 mmBTU per hour.

One (1) space heater, fueled by natural gas, identified as # 45, with a heat capacity of 0.2 mmBTU per hour.

One (1) space heater, fueled by natural gas, identified as # 46, with a heat capacity of 0.175 mmBTU per hour.

Three (3) space heaters, fueled by natural gas, identified as # 47, # 50, and # 51, each with a heat capacity of 0.225 mmBTU per hour.

One (1) space heater, fueled by natural gas, identified as # 54, with a heat capacity of 0.25 mmBTU per hour.

One (1) space heater, fueled by natural gas, identified as # 57, with a heat capacity of 0.35 mmBTU per hour.

One (1) electric oven, identified as # 59, unknown kilowatts per hour.

One (1) oven, fueled by natural gas, identified as # 60, with a heat capacity of 0.15 mmBTU per hour.

One (1) HVAC, fueled by natural gas, identified as # 61, with a heat capacity of 0.18 mmBTU per hour.

Two (2) electric HVACs, identified as # 62 and # 64, unknown kilowatts per hour.

One (1) water heater, fueled by natural gas, identified as # 67, with a heat capacity of 0.04 mmBTU per hour.

One (1) HVAC, fueled by natural gas, identified as # 72, with a heat capacity of 0.15 mmBTU per hour.

One (1) space heater, fueled by natural gas, identified as # 73, with a heat capacity of 0.175 mmBTU per hour.

Two (2) electric ovens, identified as # 75 and # 76, 45 kilowatts per hour.

One (1) space heater, fueled by natural gas, identified as # 78, with a heat capacity of 0.175 mmBTU per hour.

One (1) HVAC, fueled by natural gas, identified as # 81, with a heat capacity of 0.225 mmBTU per hour.

Two (2) space heaters, fueled by natural gas, identified as # 82 and # 83, with a heat capacity of 0.175 mmBTU per hour.

One (1) HVAC, fueled by natural gas, identified as # 84, with a heat capacity of 0.12 mmBTU per hour.

Two (2) furnaces, fueled by natural gas, identified as # 85 and # 86, each with a heat capacity of 0.12 mmBTU per hour.

Two (2) HVACs, fueled by natural gas, identified as # 88 and # 89, each with a heat capacity of 0.12 mmBTU per hour.

Two (2) paint booths, coating hydraulic and pneumatic seals (gaskets), coating 150 units per hour.

One (1) natural gas laboratory oven, with a heat capacity of 0.175 mmBTU per hour.

One (1) polyurethane elastomers testing process, producing 1.25 pounds of elastomers per hour, using canopies # A-65 and A-66, and lab hoods # A-67 and A-68.

A seals and wipers production unit, for formulating a polyurethane elastomer polymer, using isocyanate-terminated prepolymer. The process includes casting, granulation, drying, extrusion,

Busak and Shamban Seals Division
Fort Wayne, Indiana

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pelletization, and injection molding at the production rate of 67 lb/hr. The isocyanate prepolymer pellets production is outsourced which results in low VOC emissions.

A production unit for sodium etched Teflon, producing a maximum of 800 pounds of the product. This production unit consists of an ammonia tank, a mixing bucket, and etchant and rinse baths.

The following conditions shall be applicable:

- (1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
- (2) Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the surface coating operation shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The dry filter shall be in operation at all times the surface coating unit is in operation, in order to comply with this limit.

- (3) Any change or modification which may increase the actual emissions of VOC to fifteen (15) pounds per day or the potential to emit of a combination of HAPs to twenty-five (25) tons per year or a single HAP to ten (10) tons per year from this source shall require approval from IDEM, OAQ, prior to making the change.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

cc: File - Allen County
Allen County Health Department
Air Compliance - Jennifer Dorn
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name: Busak and Shamban
Source Location: 2531 Bremmer Road, Fort Wayne, IN 46801
County: Allen
SIC Code: 3089
Operation Permit No.: 003-14999-00219
Permit Reviewer: Madhurima D. Moulik

The Office of Air Quality (OAQ) has reviewed an application from Busak and Shamban relating to the construction and operation of a sodium etched Teflon production unit. The source also consists of some permitted emission units as listed below.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

Two (2) space heaters, identified as # 1 and # 2, fueled by natural gas, each with a heat capacity of 0.18 mmBTU per hour.

One (1) space heater, identified as # 4, fueled by natural gas, with a heat capacity of 0.15 mmBTU per hour.

One (1) space heater, identified as # 6, fueled by natural gas, with a heat capacity of 0.125 mmBTU per hour.

One (1) HVAC unit, identified as # 9, fueled by natural gas, with a heat capacity of 0.16 mmBTU per hour.

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One (1) oven, identified as # 17, with a heat capacity of 0.8 mmBTU per hour.

One (1) electric oven, identified as # 20, with a capacity of 60 kilowatts per hour.

One (1) electric oven, identified as # 21, with a heat capacity of 0.8 mmBTU per hour.

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One (1) electric HVAC, identified as # 29, unknown kilowatts per hour.

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One (1) space heater, fueled by natural gas, identified as # 57, with a heat capacity of 0.35 mmBTU per hour.

One (1) electric oven, identified as # 59, unknown kilowatts per hour.

One (1) oven, fueled by natural gas, identified as # 60, with a heat capacity of 0.15 mmBTU per hour.

One (1) HVAC, fueled by natural gas, identified as # 61, with a heat capacity of 0.18 mmBTU per hour.

Two (2) electric HVACs, identified as # 62 and # 64, unknown kilowatts per hour.

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One (1) HVAC, fueled by natural gas, identified as # 72, with a heat capacity of 0.15 mmBTU per hour.

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One (1) space heater, fueled by natural gas, identified as # 78, with a heat capacity of 0.175 mmBTU per hour.

One (1) HVAC, fueled by natural gas, identified as # 81, with a heat capacity of 0.225 mmBTU per hour.

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One (1) HVAC, fueled by natural gas, identified as # 84, with a heat capacity of 0.12 mmBTU per hour.

Two (2) furnaces, fueled by natural gas, identified as # 85 and # 86, each with a heat capacity of 0.12 mmBTU per hour.

Two (2) HVACs, fueled by natural gas, identified as # 88 and # 89, each with a heat capacity of 0.12 mmBTU per hour.

Two (2) paint booths, coating hydraulic and pneumatic seals (gaskets), coating 150 units per hour.

One (1) natural gas laboratory oven, with a heat capacity of 0.175 mmBTU per hour.

One (1) polyurethane elastomers testing process, producing 1.25 pounds of elastomers per hour, using canopies # A-65 and A-66, and lab hoods # A-67 and A-68.

A seals and wipers production unit, for formulating a polyurethane elastomer polymer, using isocyanate-terminated prepolymer. The process includes casting, granulation, drying, extrusion, pelletization, and injection molding at the production rate of 67 lb/hr. The isocyanate prepolymer pellets production is outsourced which results in low VOC emissions.

New Emission Units and Pollution Control Equipment

The source also consists of the following new emission units:

- (a) A production unit for sodium etched Teflon, producing a maximum of 800 pounds of the product. This production unit consists of an ammonia tank, a mixing bucket, and etchant and rinse baths.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) Exemption No. 003-4133-00219.
- (b) Registration No. 003-6957-00219.
- (c) Exemption No. 003-12190-00219.

All conditions from previous approvals were consolidated and incorporated into this permit.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively incomplete application for the purposes of this review was received on September 25, 2001. Additional documents were received on November 28, 2001.

Emission Calculations

See Appendix A of this document for detailed emissions calculations

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

| Pollutant | Potential To Emit (tons/year) |
|-----------------|-------------------------------|
| PM | 1.11 |
| PM-10 | 1.11 |
| SO ₂ | Negligible |
| VOC | 8.47 |
| CO | 2.8 |
| NO _x | 3.3 |
| HAPs | 8.04 |

- (a) The potential to emit (as defined in 326 IAC 2-7-1 (29)) of PM, PM₁₀ is less than five (5) tons, and less than ten (10) tons per year of other criteria pollutants, as well as less than twenty-five (25) tons per year of CO. Therefore, the source is not subject to the provisions of 326 IAC 2-5 and will be granted an exemption.

County Attainment Status

The source is located in Allen County.

| Pollutant | Status |
|-----------------|------------|
| PM-10 | attainment |
| SO ₂ | attainment |
| NO ₂ | attainment |
| Ozone | attainment |
| CO | attainment |
| Lead | attainment |

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Allen County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Allen County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

| Pollutant | Emissions (ton/yr) |
|-----------------|-----------------------|
| PM | 1.11 |
| PM10 | 1.11 |
| SO ₂ | Negligible |
| VOC | 8.47 |
| CO | 2.8 |
| NO _x | 3.3 |

- (a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

Federal Rule Applicability

- (a) The new storage and mixing tanks in the metal etched Teflon production unit are not subject to the requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels, 326 IAC 12, (40 CFR 60.110b, Subpart Kb), since no volatile organic liquids are stored in this tank.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because it does not have the potential to emit more than one hundred (100) tons per year of any pollutants.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 8-2 (Surface Coating Emissions Limitations)

The potential to emit of VOCs from the surface coating operation is 14.9 pounds per day. Therefore, since the actual emissions are less than 15 pounds per day, 326 IAC 8-2 does not apply. No other Article 8 rules apply.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the surface coating operation shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The dry filter shall be in operation at all times the surface coating unit is in operation, in order to comply with this limit.

Conclusion

The construction and operation of the production unit for metal etched Teflon and the operation of the other emission units at this source shall be subject to the conditions of the attached proposed Exemption No. 003-14999-00219.

Appendix A: Emissions Calculations**Natural Gas Combustion Only****MM BTU/HR <100****Space Heaters + Furnaces****Company Name: Busak and Shamban Seals Division****Address City IN Zip: 2531 Bremmer Road, Fort Wayne, IN 46801****CP: 003-14999****Plt ID: 003-00219****Reviewer: Madhurima D. Moulik****Date: November 27, 2001**Heat Input Capacity
MMBtu/hrPotential Throughput
MMCF/yr

7.6

66.4

| Pollutant | | | | | | |
|-------------------------------|------------|--------------|------------|-----------------------------|------------|------------|
| Emission Factor in lb/MMCF | PM* 7.6 | PM10* 7.6 | SO2 0.6 | NOx 100.0 **see below | VOC 5.5 | CO 84.0 |
| Potential Emission in tons/yr | 0.3 | 0.3 | 0.0 | 3.3 | 0.2 | 2.8 |

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations**Natural Gas Combustion Only****MM BTU/HR <100****Space Heaters + Furnaces****HAPs Emissions****Company Name: Busak and Shamban Seals Division****Address City IN Zip: 2531 Bremmer Road, Fort Wayne, IN 46801****CP: 003-14999****Plt ID: 003-00219****Reviewer: Madhurima D. Moulik****Date: November 27, 2001****HAPs - Organics**

| | | | | | |
|-------------------------------|--------------------|----------------------------|-------------------------|-------------------|--------------------|
| Emission Factor in lb/MMcf | Benzene 2.1E-03 | Dichlorobenzene 1.2E-03 | Formaldehyde 7.5E-02 | Hexane 1.8E+00 | Toluene 3.4E-03 |
| Potential Emission in tons/yr | 6.972E-05 | 3.984E-05 | 2.490E-03 | 5.976E-02 | 1.129E-04 |

HAPs - Metals

| | | | | | |
|-------------------------------|-----------------|--------------------|---------------------|----------------------|-------------------|
| Emission Factor in lb/MMcf | Lead 5.0E-04 | Cadmium 1.1E-03 | Chromium 1.4E-03 | Manganese 3.8E-04 | Nickel 2.1E-03 |
| Potential Emission in tons/yr | 1.660E-05 | 3.652E-05 | 4.648E-05 | 1.262E-05 | 6.972E-05 |

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.

Emission Calculations

A

Appendix A

Source Name: Busak and Shamban
Source Location: 2531 Bremmer Road, Fort Wayne, IN 46801
County: Allen
SIC Code: 3089
Operation Permit No.: 003-14999-00219
Permit Reviewer: Madhurima D. Moulik
Date: November 27, 2001

VOC emissions from the seals and wipers production unit:

The emissions from the registered research and development were based from a production scale, at 8760 hours per year, and at a maximum production of 67 pounds per hour of polyurethane pellets. The calculations in the registration were based on the emissions coming from the isocyanate prepolymer pellets production. Since the pellet production part of the process is outsourced, the emissions coming from this hydraulic seals and wipers production will be reduced.

Using 1 lb/ton emission factor developed by Wisconsin DNR through testing:

Emissions from the Hydraulic Seal and Wiper Production:

$$\begin{aligned}\text{VOC Emissions} &= 67 \text{ lb/hr} * 1 \text{ lb/ton} * \text{ton}/2000 \text{ lb} * 8760 \text{ hr/yr} * \text{ton}/2000 \text{ lb} \\ &= \mathbf{0.146 \text{ ton/yr}}\end{aligned}$$

VOC and HAP emissions from polyurethane elastomers testing process:

Rate of 2-Chloroaniline emission = 0.125 lb/hr

Using 8760 hours of operation on a year:

$$\begin{aligned}\text{Rate of emissions} &= \text{Production Rate (lb/hr)} * 8760 \text{ hr/yr} * 1 \text{ ton}/2000 \text{ lb} \\ &= 5.48 \text{ tons per year}\end{aligned}$$

$$\begin{aligned}\text{Rate of Toluene emission} &= 0.0025 \text{ lb/hr} \\ &= 0.01 \text{ tons per year}\end{aligned}$$

Therefore, VOC = **5.49 tons/yr**
HAPs = **5.49 tons/yr**

Appendix A: Emission Calculations
HAP Emission Calculations
From Surface Coating Operation

Company Name: Busak and Shamban Seals Division
Address City IN Zip: 2531 Bremmer Road, Fort Wayne, IN 46801
CP: 003-14999
Plt ID: 003-00219
Reviewer: Madhurima D. Moulik
Date: November 27, 2001

| Material | Density (Lb/Gal) | Gallons of Material (gal/unit) | Maximum (unit/hour) | Weight % Carbon Tetrachlorid e | Weight % Formalde hyde | Weight % MIBK | Weight % MEK | Carbon Tetrachloride Emissions (ton/yr) | Formaldehy de Emissions (ton/yr) | MIBK Emissions (ton/yr) | MEK Emissions (ton/yr) | Combination HAPs |
|----------|---------------------|---|------------------------|---|------------------------------|------------------|-----------------|--|---|-------------------------------|------------------------------|---------------------|
| Thioxin | 7.9 | 0.00050 | 150.00 | 0.10% | 1.00% | 70.00% | 2.00% | 0.00 | 0.03 | 1.82 | 0.05 | 1.90 |
| Chemlock | 7.8 | 0.00020 | 150.00 | 0.00% | 0.16% | 63.35% | 0.00% | 0.00 | 0.00 | 0.65 | 0.00 | 65.09 |

| | | | | | |
|----------------------------------|-------------|-------------|-------------|-------------|--------------|
| Potential to Emit (tpy) = | 0.00 | 0.03 | 2.47 | 0.05 | 66.99 |
|----------------------------------|-------------|-------------|-------------|-------------|--------------|

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

**Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

**Company Name: Busak and Shamban Seals Division
Address City IN Zip: 2531 Bremmer Road, Fort Wayne, IN 46801
CP: 003-14999
Plt ID: 003-00219
Reviewer: Madhurima D. Moulik
Date: November :27, 2001**

| Material | Density (Lb/Gal) | Weight % Volatile (H2O & Organics) | Weight % Water | 74% | Volume % Water | Volume % Non-Volatiles (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Pounds VOC per gallon of coating less water | Pounds VOC per gallon of coating | Potential VOC pounds per hour | Potential VOC pounds per day | Potential VOC tons per year | Particulate Potential (ton/yr) | lb VOC/gal solids | Transfer Efficiency |
|----------|------------------|------------------------------------|----------------|-------|----------------|---------------------------------|------------------------|---------------------|---|----------------------------------|-------------------------------|------------------------------|-----------------------------|--------------------------------|-------------------|---------------------|
| Thioxin | 7.9 | 75.00% | 0.0% | 75.0% | 0.0% | 14.00% | 0.00050 | 150 | 5.93 | 5.93 | 0.44 | 10.67 | 1.95 | 0.58 | 42.32 | 10% |
| Chemlock | 7.8 | 75.00% | 0.0% | 75.0% | 0.0% | 5.90% | 0.00020 | 150 | 5.85 | 5.85 | 0.18 | 4.21 | 0.77 | 0.23 | 99.15 | 10% |

State Potential Emissions

0.62 14.88 2.72 0.81

METHODOLOGY

**Potential to Emit of VOC (tpy) = 2.72
Potential to Emit of PM (tpy) = 0.81**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

**Emission Calculations
Appendix A**

Source Name: Busak and Shamban
Source Location: 2531 Bremmer Road, Fort Wayne, IN 46801
County: Allen
SIC Code: 3089
Operation Permit No.: 003-14999-00219
Permit Reviewer: Madhurima D. Moulik
Date: November 27, 2001

| Emission Unit(s) | PM | PM-10 | SO2 | NOx | VOC | CO | HAPs |
|------------------------------|-------------|--------------|------------|------------|-------------|------------|-------------|
| Surface Heaters and Furnaces | 0.3 | 0.3 | 0.0 | 3.3 | 0.2 | 2.8 | Negligible |
| Seals and Wiper Production | - | - | - | - | 0.146 | - | - |
| Polyurethane Testing | - | - | - | - | 5.49 | - | 5.49 |
| Surface Coating | 0.81 | 0.81 | - | - | 2.72 | - | 2.55 |
| Total PTE (tpy) | 1.11 | 1.11 | 0.0 | 3.3 | 8.47 | 2.8 | 8.04 |